

REMARKS

Claims 1-20 are currently pending in this application, of which claims 1-20 have been rejected. Claim 15 has been amended to correct an error of a typographical nature. Reconsideration of this application in light of the following remarks is requested.

I. Rejections under 35 U.S.C. §103

Claim 1 recites the following:

1. A method for providing a packet-based multimedia service to a mobile device in a network, wherein the service is defined by a telecommunications standard, and wherein the network does not support packet quality of service (QoS) functionality as required by the standard, the method comprising:
 - establishing a packet signaling connection between the mobile device and network;
 - establishing a circuit bearer connection between the mobile device and network;
 - transferring signaling information for the multimedia service via the packet signaling connection in alignment with the standard; and
 - transferring data for the multimedia service via the circuit bearer connection in alignment with the standard, wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality.

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,721,565 to Ejzak et al. (“Ejzak”) in view of U.S. Patent No. 7,177,304 to Mo et al. (“Mo”). Applicant traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claim 1.

As the PTO recognizes in MPEP § 2142:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following reasons.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Ejzak and Mo patents cannot be applied to reject claim 1 under 35 U.S.C. § 103 which provides that:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since neither Ejzak or Mo teaches “establishing a packet signaling connection between the mobile device and network”, “establishing a circuit bearer connection between the mobile device and network”, “transferring signaling information for the multimedia service via the packet signaling connection in alignment with the standard”, and “transferring data for the multimedia service via the circuit bearer connection in alignment with the standard, wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality” as is claimed in claim 1, it is impossible to render the subject matter of claim 1 as a whole obvious, and the explicit terms of the statute cannot be met.

The Examiner has apparently conceded that Ejzak does not describe a network that does not provide quality of service (QoS) functionality as required by the standard as recited in claim 1. For example, the Examiner stated the following:

However Ejzak et al. fail to teach the method ignored [sic] the required QoS functionality.

Office Action dated 29 June 2007, Page 4.

Because Ejzak does not describe a network that does not support QoS functionality as required by the standard, Ejzak is necessarily precluded from disclosing “establishing a packet

signaling connection between the mobile device and network” wherein the network “does not support the required QoS functionality” as described in the subject application and explicitly claimed in claim 1. For at least this reason, the Examiner has failed to provide a *prima facie* case of obviousness with regard to claim 1.

Similarly, Ejzak is necessarily precluded from disclosing a method of “**establishing a circuit bearer connection between the mobile device and network**”, and “transferring data for the multimedia service via the circuit bearer connection in alignment with the standard” wherein the multimedia service is provided to the mobile device via the network as specified by the standard even though the network does not support the required QoS functionality, because, as conceded by the Examiner, Ejzak does not disclose the various steps of establishing and transferring in a network that does not support the required QoS functionality. For at least these reasons, the Examiner has failed to provide a *prima facie* case of obviousness.

With further regard to the claim 1 limitation of “transferring data for the multimedia service via the circuit bearer connection in alignment with the standard,” the Examiner has cited the following passage of Ejzak as allegedly disclosing such a method:

The term "call" is used herein to refer to a session of information transfer between a set of terminals via a telecommunications system or network, and is intended to include, but not be limited to traditional circuit voice calls, packet voice calls, circuit data calls, connectionless calls, or packet data calls, and multimedia variants thereof. This application will refer to calls involving two terminals, but one of skill in the art will appreciate how to modify the exemplary embodiment to support multi-party calls in keeping with the spirit of the present invention.

Ejzak, Column 7, Lines 11-20.

Applicants respectfully disagree. Ejzak describes a system featuring circuit and packet call models. In the cited passage, Ejzak only generally describes the term call as applicable in circuit switched and packet switched networks, depending on the particular network. Ejzak in no manner, however, describes a system in which a single mobile device has a packet signaling connection for the transfer of signaling information of a multimedia service, and a **circuit bearer connection** for “**transferring data for the multimedia service**”. For at least this reason, the Examiner has failed to provide a *prima facie* case of obviousness with regard to claim 1.

With still further regard to the claim 1 limitation of “transferring data for the multimedia service via the circuit bearer connection in alignment with the standard,” the Examiner stated the following:

Nevertheless [sic] in the same field of endeavor, Mo et al., support and show does not support [sic] the required QoS functionality (Column #1 and lines 35-38).
Office Action dated June 20, 2007, Page 4.

Here, the Examiner apparently alleges that Mo provides for the deficiencies of Ejzak.
Applicants respectfully disagree. The passage of Mo cited by the Examiner is as follows:

...asynchronously, it largely ignored considerations such as Quality of Service (QoS) for VoIP. Accordingly, as VoIP evolves, more and more efforts are being made to ensure an acceptable QoS over networks, such as IP networks.

Mo, Column 1, Lines 35-38.

Here, Mo only generally describes the initial lack of QoS provisioning in IP networks. However, Mo does not in any manner describe the transfer of data to a mobile device for a multimedia service over a circuit bearer connection that has singling information transferred over a packet signaling connection with the mobile device. In fact, Mo only generally describes a packet network that interfaces with a circuit switched device via a voice gateway that establishes a packet connection in the network on behalf of the circuit switched device. For example, Figure 1 of Mo shows the following:

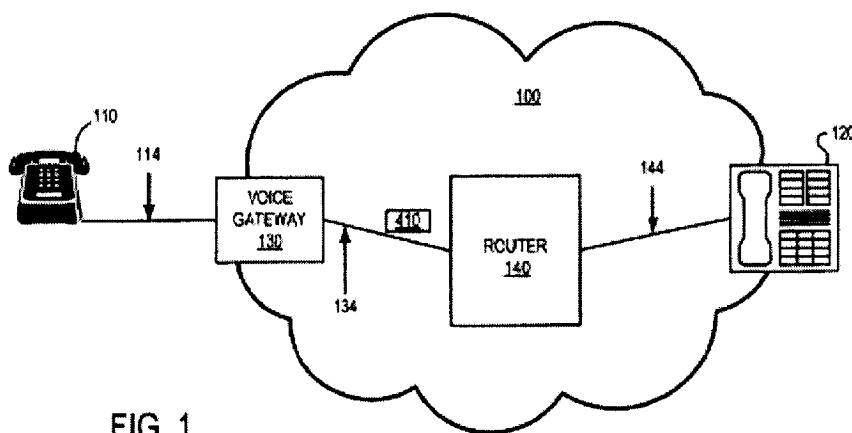


FIG. 1

With regard to Figure 1, Mo recites the following:

Network 100 may be any packet switched communications network, such as the internet, a local area network (LAN), a metropolitan area network (MAN), an intranetwork of an organization, etc.

A telephone 110 is a common, circuit switched telephone. Its user makes a call to a telephone 120, which is a packet switched telephone, also known as IP telephone. Since telephone 120 is accessible through network 100, a connection is established through network 100.

More particularly, **telephone 110 first establishes a connection 114 with a voice gateway 130 in network 100. Voice gateway 130 establishes a packet switched connection 134 with a router 140**, and router 140 establishes a packet switched connection 144 with telephone 120, to complete the connection.

Mo, Column 3, Lines 4-18 (**Emphasis Added**).

Thus, Mo describes a system that connects a circuit switched phone with a packet switched phone. However, Mo in no manner describes or suggest a mobile device, or any telephony device for that matter, that has both a packet signaling connection and a circuit bearer connection established therewith. Consequently, Mo wholly fails to describe or suggest a method of “transferring data for the multimedia service via the circuit bearer connection” that has had signaling information transferred “via the packet signaling connection” because Mo does not describe any single device with both a packet signaling connection and a circuit bearer connection. For at least this reason, Ejzak and Mo are insufficient to obviate claim 1, and withdrawal of the rejection to claim 1 is thus requested.

Claim 8

Claim 8 recites the following:

8. A method for providing a packet-based multimedia service to an endpoint in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not support a packet quality of service (QoS) mechanism specified by the standard, the method comprising:

establishing a packet-based signaling context between the endpoint and a gateway;
establishing a circuit bearer leg between the endpoint and the gateway using the signaling context; and

controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard.

Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ejzak in view of Mo. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 8.

It is submitted that, in the present case, the examiner has not factually supported a *prima facie* case of obviousness for the following reasons.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

Since neither Ejzak or Mo teaches “establishing a packet-based signaling context between the endpoint and a gateway”, “establishing a circuit bearer leg between the endpoint and the gateway using the signaling context”, or “controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard” as is claimed in claim 8, it is impossible to render the subject matter of claim 8 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 8 limitations of “establishing a packet-based signaling context between the endpoint and a gateway”, and “establishing a circuit bearer leg between the endpoint and the gateway using the signaling context,” Applicants note the Examiner stated the following:

However Ejzak et al. fail to teach the method ignored [sic] the required QoS functionality.

Office Action dated 29 June 2007, Page 5.

Here, the Examiner apparently concedes that Ejzak does not describe a network that “does not support a packet quality of service (QoS) mechanism specified by the standard” as described in the subject application and recited in claim 8. Thus, Ejzak is necessarily precluded from disclosing a method of “establishing a packet-based signaling context between the endpoint” included in the network that does not “support a packet quality of service (QoS)

mechanism” and a gateway, and “establishing a circuit bearer leg between the endpoint” included in the network that does not “support a packet quality of service (QoS) mechanism” and the gateway using the signaling context. For at least this reason, Ejzak and Mo are insufficient to obviate claim 8, and withdrawal of the rejection to claim 8 is thus requested

With regard to the claim 8 limitation of “controlling the transfer of data via the circuit bearer leg using the signaling context, wherein the signaling context is used to control the provision of the packet-based multimedia service via the circuit bearer leg in alignment with the standard,” the Examiner cites the following passage of Ejzak as allegedly disclosing the subject method step of claim 8:

Following the handover, the provision of features requested by the user (to the extent they may be available in the circuit system 120) continue to be managed by MSC 124 of circuit system 120 (or another anchor MSC if present). In step 824, the serving MSC releases resources that were previously allocated to the call, to the extent they are not required to support the connections between MG 150, MSC 124, and PSTN 132. The method ends at step 826.

Ejzak, Column 13, Lines 46-53.

Applicants respectfully disagree. Here, Ejzak describes a handover between a packet-switched network and a circuit-switched network. However, Ejzak is wholly silent with regard to any mechanism for controlling the “transfer of data via the circuit bearer” leg using the signaling context that **is used to control the provision of the packet-based multimedia service via the circuit bearer leg** in alignment with the standard as described in the subject application and expressly recited in claim 8. For at least this reason, Ejzak and Mo are insufficient to obviate claim 8, and withdrawal of the rejection to claim 8 is thus requested.

Thus, the Examiner’s burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claim 15

Amended claim 15 recites the following:

15. A telecommunications system for providing a packet-based multimedia service to a mobile station (MS) in a wireless network, wherein the service is defined by a telecommunications standard, and wherein the network does not

support a packet quality of service (QoS) mechanism specified by the standard, the system comprising:

a proxy call session control function (P-CSCF);

a media gateway connected to the P-CSCF; and

a plurality of instructions for executing within the network, the instructions for:

establishing a packet signaling connection between the MS and the P-CSCF;

establishing a circuit bearer connection between the MS and the media gateway;

transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard; and

transferring data for the multimedia service between the media gateway and the MS via the circuit bearer connection in response to the signaling information.

Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0110104A1 to Surdila et al. (“Surdila”) in view of Ejzak. Applicants traverse this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claim 15.

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following reasons.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

Since neither Surdila nor Ejzak teaches “establishing a packet signaling connection between the MS and the P-CSCF”, “establishing a circuit bearer connection between the MS and the media gateway”, or “transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard” that specifies a quality of service (QoS) as is claimed in claim 15, it is impossible to render the subject matter of claim 15 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 15 limitation of “establishing a packet signaling connection between the MS and the P-CSCF”, the Examiner cited the following passage of Surdila as allegedly disclosing such a system:

The core network also includes a Media Gateway Control Function (MGCF) 28 and a Transport Signaling Gateway Function (T-SGW) 29 that exchange control signaling with entities in the circuit-switched domain. The MGCF 28 is the PSTN/PLMN termination point for a defined network. The MGCF controls the parts of the call state that pertain to connection control for media channels in the Media Gateway (MGW). The MGCF selects a CSCF depending on the routing number for incoming calls from legacy networks and communicates with the CSCF. The MGCF performs protocol conversion between the legacy call control protocols (for example, ISUP) and the 3GPP network call control protocols. The T-SGW 29 maps call-related signaling to/from the PSTN/PLMN on an IP bearer and sends it to/from the MGCF.

Surdila, Paragraph 0022.

With regard to the claim 15 limitation of “establishing a circuit bearer connection between the MS and the media gateway”, the Examiner cited the following passages of Surdila as allegedly disclosing such a system:

One possible solution is to merely eliminate the circuit-switched portion of the access network. This requires new mobile terminals that are capable of supporting the Universal Mobile Telecommunications System (UMTS), GPRS, or the Enhanced Data Rates for GSM Evolution (EDGE) which provide packet-switched access. However, the existing base of circuit-switched mobile terminals is very large, so it is desirable to maintain the circuit-switched access capability and merge it with the packet-switched access.

Surdila, Paragraph 0009.

With regard to paragraph 0022 of Surdila, Surdila only generally describes exchange of signaling with a circuit-switched domain. With regard to paragraph 0009 of Surdila, Surdila generally describes mobile terminals that support packet-switched access and mobile terminals that support circuit-switched access. Surdila is wholly silent with regard to establishing both a packet signaling connection with a mobile station and a circuit bearer connection with the mobile station. For at least this reason, Surdila and Ejzak are insufficient to obviate claim 15, and withdrawal of the rejection to claim 15 is thus requested.

With regard to the claim 15 limitation of “transferring signaling information for the multimedia service between the P-CSCF and the media gateway, and between the P-CSCF and the MS via the packet signaling connection in alignment with the standard”, the Examiner cited the following passages of Surdila as allegedly disclosing such a system mechanism:

[0022] The core network also includes a Media Gateway Control Function (MGCF) 28 and a Transport Signaling Gateway Function (T-SGW) 29 that exchange control signaling with entities in the circuit-switched domain. The MGCF 28 is the PSTN/PLMN termination point for a defined network. The MGCF controls the parts of the call state that pertain to connection control for media channels in the Media Gateway (MGW). The MGCF selects a CSCF depending on the routing number for incoming calls from legacy networks and communicates with the CSCF. The MGCF performs protocol conversion between the legacy call control protocols (for example, ISUP) and the 3GPP network call control protocols. The T-SGW 29 maps call-related signaling to/from the PSTN/PLMN on an IP bearer and sends it to/from the MGCF.

[0023] Within the circuit-switched domain 12, TE 31 may connect through a Mobile Terminal operating in the circuit-switched mode (MT_{CS}) 32 to a radio access network 33 such as GERAN, UTRAN, or the IS-136 RAN. Once again, at the radio access network 33, control signaling is separated from the media payload. The payload goes to an MGW 34 associated with a Mobile Switching Center (MSC) Server 35. The MSC server comprises the call control and mobility control parts of a legacy MSC. The MSC server terminates the user network signaling and translates it into the relevant network signaling. The MSC server also contains a Visitor Location Register (VLR) to store the mobile subscriber's service-related data. The MSC server controls the parts of the call state that pertain to connection control for media channels in the associated MGW 34.

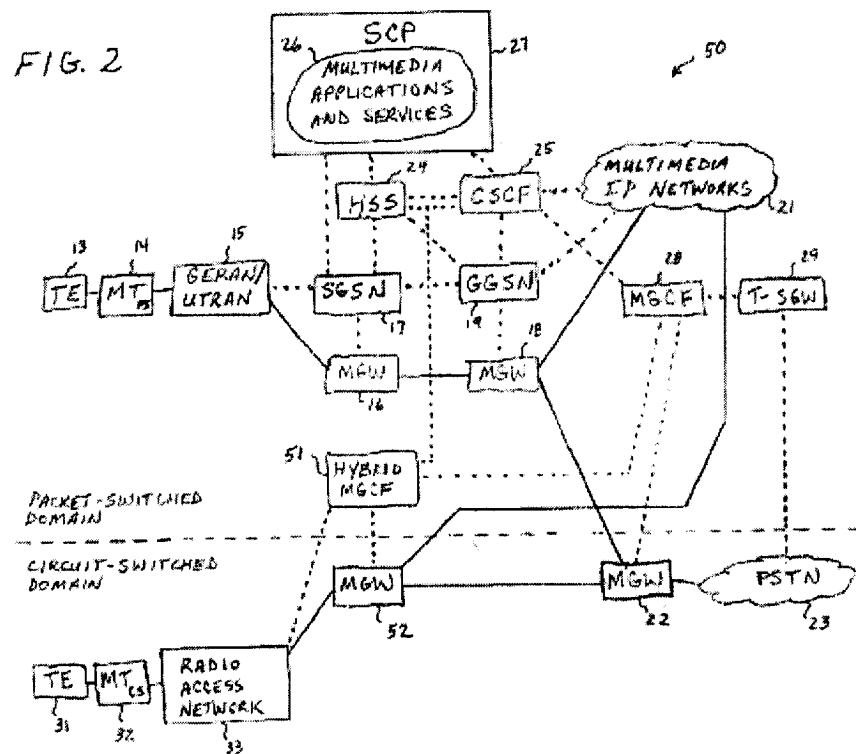
[0006] To add IP technology to the wireless network, new nodes must be added such as a Serving General Packet Radio Service (GPRS) Service Node (SGSN) server. A signaling connection is provided from the RNC to the SGSN server for control, and a payload connection is provided from the RNC to an MGW. A Gateway GPRS Service Node (GGSN) together with an MGW provides access to multimedia IP networks. This infrastructure enables a mobile terminal operating in a packet-switched network to access a multimedia IP network.

Surdila, Paragraphs 0006, and 0022-0023.

Applicants respectfully disagree. Particularly, Applicants note that Surdila is wholly silent with regard to transferring signaling information “in alignment with the standard” that specifies a packet quality of service as described in the subject application and as explicitly recited in claim 15. For at least this reason, Surdila and Ejzak are insufficient to obviate claim 15, and withdrawal of the rejection to claim 15 is thus requested.

2. Prior Art That Teaches Away From the Claimed Invention Cannot be Used to Establish Obviousness

In the present case, the Surdila reference discloses only mobile stations capable of one of a packet-switched operation or a circuit-switched operation. Thus, Surdila is directed to a system in which the establishment of both a packet signaling connection and a circuit-switched bearer connection with a common mobile station is neither described or suggested. For example, Figure 2 of Surdila is as follows:



As is clearly depicted by Surdila, mobile terminals operating in the system of Surdila operate in either a packet-switched mode (e.g., mobile terminal 14) or in a circuit-switched mode (e.g., mobile terminal 32). Thus, this system clearly teaches away from claim 15, recited above, in which both a circuit-switched and packet-switched connection are established with a common mobile station .

Since it is well recognized that teaching away from the claimed invention is a *per se* demonstration of lack of *prima facie* obviousness, it is clear that the examiner has not borne the initial burden of factually supporting any *prima facie* conclusion of obviousness.

Thus, for this reason alone, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Appl. No. 10/630,999
Reply to Office Action dated June 29, 2007

II. Conclusion

It is clear from all of the foregoing that independent claims 1, 8, and 15 are in condition for allowance. Dependent claims 2-7, 9-14, and 16-20 depend from and further limit independent claims 1, 8, and 15 and therefore are allowable as well.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



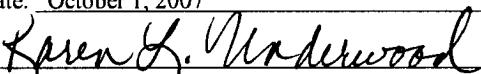
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I hereby certify that this correspondence is being filed with the United States Patent and Trademark Office via EFS-Web on the following date.

Date: October 1, 2007


Karen L. Underwood